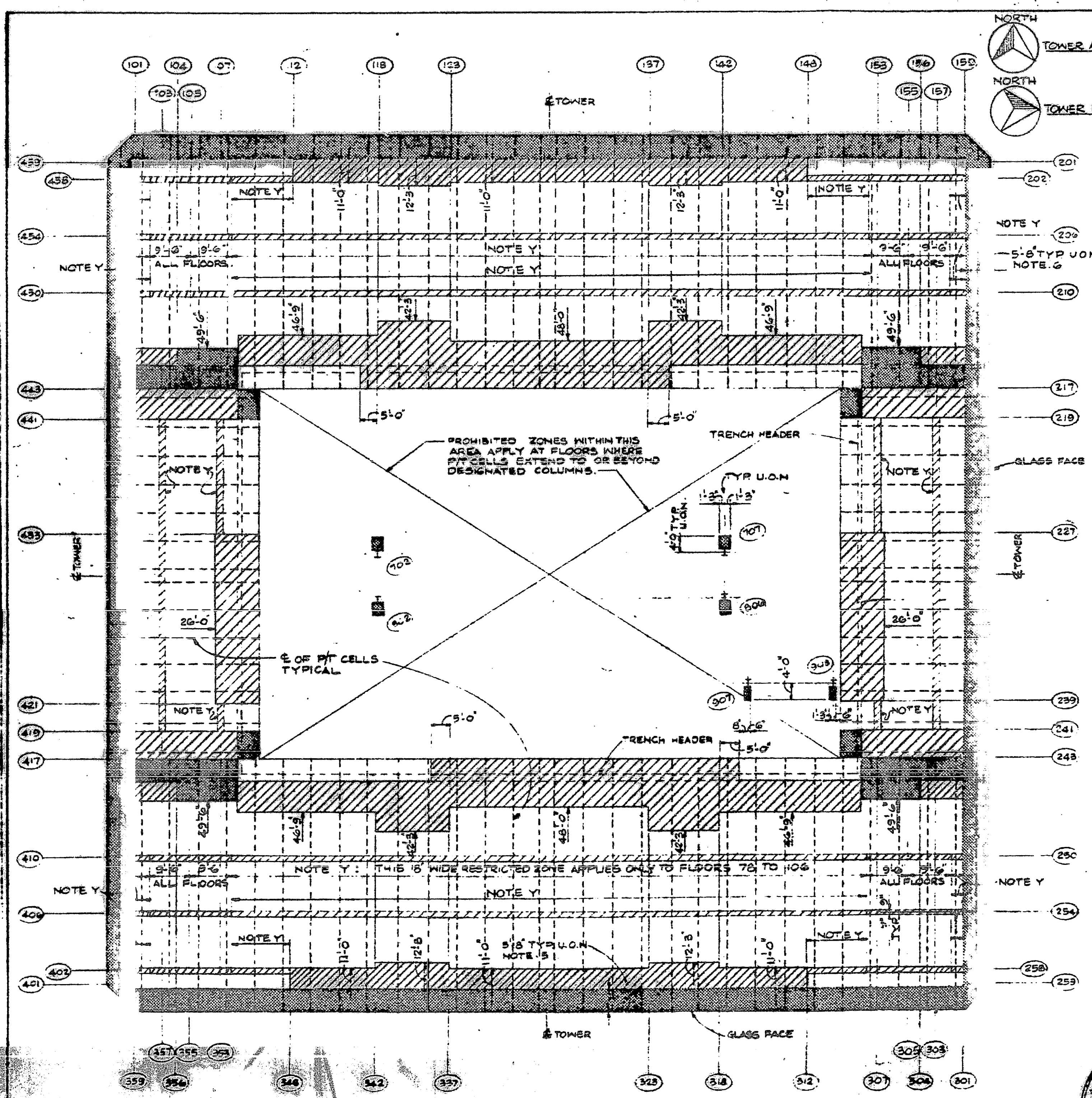


4-10-5
Cantor Fitzgerald
105 E 6th St
NEW YORK, NY 10003

DRAWING NUMBER
105 E 6th St
NEW YORK, NY 10003

UPPER 11th FLOOR
NEW YORK, NY 10003

DRAWING NUMBER
105 E 6th St
NEW YORK, NY 10003



DATE	ISSUED TO	BY	REVISION
10-21-91	P.A. AS NOTED SET		1
9/19/91	PORT AUTHORITY		10
5/24/91	P.A. FOR APPROVAL		6
5/4/91	P.A. FOR APPROVAL		10

- SCORE AND GENERAL NOTES**
- THESE CRITERIA APPLY ONLY TO THOSE HOLES CORED INTO THE POWER/TELEPHONE CELLS AND UNDER INDUCTION UNITS AND ONLY IN THE FOLLOWING TYPICAL TENANT FLOORS:
1 WTC 10 TO 40, 46 TO 74, 78 TO 106
2 WTC 14 TO 46, 48 TO 74, 78 TO 106
 - FOR MODIFICATION OF CRITERIA AT STAIR AND ESCALATOR OPENINGS AT FLOORS 46 TO 48 AND 78 TO 82 IN BOTH TOWERS, SEE PART PLANS, CORING CRITERIA SHEET 3-PT-3.
 - EXISTING CORED HOLES, WHETHER BEING REUSED OR ABANDONED, ARE TO BE INCLUDED IN THESE CRITERIA.
 - MAXIMUM CORE SIZE 6" DIAMETER, WHERE PERMITTED. MINIMUM AVERAGE CENTER TO CENTER SPACING ALONG A POWER/TELEPHONE CELL, FOR ANY 4 CORRESPONDING CORING HOLES IS 1'-4" FOR RESTRICTED AND PROHIBITED ZONE DESIGNATIONS. SEE NOTES 5 AND 6 FOR SPACING CRITERIA ALONG POWER/TELEPHONE CELLS ADJACENT TO HOLES OFFSET FROM THE CELLS. SEE CORING CRITERIA SHEET 3-PT-3.
 - RESTRICTED ZONES:
CAREFULLY LOCATE CORES TO AVOID CUTTING REBAR, OR REPAIR CUT OF DAMAGED REBAR.
WHERE THE PROPOSED LOCATION OF A NEW HOLE CAN BE CHANGED IN ORDER TO CLEAR EXISTING REBAR AND AVOID THE NEED FOR REPAIRS, USE A BAR LOCATOR OR ELECTRIC HAMMER THE GLASS TO LOCATE THE REBAR.
SEE CRITERIA SHEET 3-PT-2 FOR REBAR AND COLUMN STRAP ANCHOR REPAIR DETAILS.
 - PROHIBITED ZONES:
CORING PROHIBITED, EXCEPT WITHIN INDUCTION UNITS AND AS NOTED IN PART PLAN DETAIL AT BUILDING PERIMETER. SEE SHEET 3-PT-3.
SEE CRITERIA SHEET 3-PT-2 FOR REBAR AND COLUMN STRAP ANCHOR REPAIR DETAILS FOR ABANDONED HOLES.
 - WHERE EXISTING CORED HOLES WHICH ARE TO BE ABANDONED DO NOT REQUIRE REBAR OR COLUMN STRAP ANCHOR REPAIRS, THE HOLES ARE TO BE FILLED WITH NON-SHrink GROUT.
 - WHERE EXISTING CORED HOLES WITHIN THE ZONES DEFINED IN NOTES 5 AND 6 ARE TO BE ABANDONED, LOCATE REBAR IN THE VICINITY OF THE ABANDONED HOLE USING A BAR LOCATOR, REPAIR IN AND REBAR AND COLUMN STRAP ANCHORS WHICH WERE CUT OR DAMAGED BY THE CORING.
 - WHERE EXISTING HOLES IN NON-RESTRICTED ZONES CLEAR AREAS IN PLANS DO NOT MEET THE CRITERIA OF NOTE 4, FOR EACH NONCONFORMING GROUP OF 4 HOLES, INSTALL ONE REBAR REPAIR PER APPROPRIATE DETAIL, PERPENDICULAR TO THE UNDERLYING PIT CELL AND CENTERED ON THE NONCONFORMING GROUP.
 - WHERE CONCRETE OR FILL MATERIAL IS TO BE REMOVED, EXERCISE DUE CARE NOT TO DAMAGE EXISTING REINFORCEMENT. UNDER NO CIRCUMSTANCES SHOULD COLUMN STRAP ANCHORS BE DAMAGED.
 - EXTENSION DIMENSIONS ARE MEASURED FROM THE GLASS FACE AT EXTERIOR WALL.
 - DRAWINGS OF THE PROPOSED CORE LOCATIONS ARE TO BE SUBMITTED BY THE TENANT FOR REVIEW OF THE PORT AUTHORITY ARCHITECT. THE PORT AUTHORITY ARCHITECT MUST BE NOTIFIED IN ADVANCE WHEN CORING OR OTHER WORK IS TO START, SO THAT PROVISIONS ARE IN PLACE FOR INSPECTION.
 - REMOVE RUST, GREASE, CEMENT AND OTHER CONTAMINANTS FROM STRUCTURAL STEEL AND REBAR SURFACES BEFORE WELDING.
 - TENANT SHALL SUBMIT CERTIFICATION THAT WELDERS ARE QUALIFIED IN ACCORDANCE WITH THE BUILDING CODE AND WITH APPLICABLE AWS REQUIREMENTS FOR EACH SPECIFIC WELDING PROCEDURE AND PROCESS WHICH THE WELDER WILL USE IN THE WORK.

- CODES AND MATERIALS**
- ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE "BUILDING CODE OF THE CITY OF NEW YORK", LATEST EDITION AND REVISION.
 - WHERE MORE STRINGENT, THE LATEST EDITION, WITH SUPPLEMENTS TO DATE WHERE APPLICABLE, OF THE FOLLOWING CODES SHALL APPLY TO THE WORK:
 - AMERICAN INSTITUTE OF STEEL CONSTRUCTION, "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", SUPPLEMENT D1 IS SPECIFICALLY EXCLUDED.
 - AMERICAN CONCRETE INSTITUTE, "STANDARD BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318).
 - AMERICAN WELDING SOCIETY, "STRUCTURAL WELDING CODE - STRUCTURAL STEEL (AWS D1.1) AND REINFORCING STEEL" (AWS D1.4).
 - ADDED STRUCTURAL STEEL PLATES SHALL CONFORM TO ASTM A572.
 - ADDED REBAR SHALL CONFORM TO ASTM A615, GRADE 60.
 - WELDING MATERIALS FOR STRUCTURAL STEEL SHALL BE E7018 CONFORMING TO AWS A5.1 "SPECIFICATION FOR COVERED CARBON STEEL AND WELDING ELECTRODES".
 - WELDING MATERIALS FOR REINFORCING STEEL SHALL BE E7018.
 - NON-SHrink GROUT SHALL BE CRYSTAL-BY LAM CONSTRUCTION CHEMICALS COMPANY, OR AN EQUIVALENT MATERIAL ACCEPTABLE TO THE PORT AUTHORITY ARCHITECT.



REV.	NO.	DATE	DESCRIPTION
1	1	1-19-90	GENERAL REVISION

THE WORLD TRADE CENTER
PORT AUTHORITY OF NEW YORK & NEW JERSEY

LESLIE E. ROBERTSON ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS
211 EAST 46TH STREET
NEW YORK, NEW YORK 10017

CORING CRITERIA
AT TOWER PIT CELLS AND
UNDER INDUCTION UNITS
TENANT FLOORS

DATE: 5-24-91